Loeb

14

RAW SEQUENCE LISTING
PATENT APPLICATION: **US/09/515,363B**

DATE: 06/20/2001
TIME: 16:07:52

Input Set : **A:\pto.txt**
Output Set: **N:\CRF3\06202001\I515363B.raw**

ENTERED

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 3  <110> APPLICANT: Fisher, Paul
 5  <120> TITLE OF INVENTION: Melanoma Differential Associated Gene-5 (mda-5), Promoter
and uses
 6        Thereof
 8  <130> FILE REFERENCE: 0575/60849
10  <140> CURRENT APPLICATION NUMBER: 09/515,363B
11  <141> CURRENT FILING DATE: 2000-02-29
13  <160> NUMBER OF SEQ ID NOS: 3
15  <170> SOFTWARE: PatentIn version 3.0
17  <210> SEQ ID NO: 1
18  <211> LENGTH: 3365
19  <212> TYPE: DNA
20  <213> ORGANISM: Human
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25  cctgcttctc taagtgggca gcggacagcg gcacgcacat ttcacctgtc ccgcagacaa    120
27  cagcaccatc tgcttgggag aaccctctcc cttctctgag aaagaaagat gtcgaatggg    180
29  tattccacag acgagaattt ccgctatctc atctcgtgct tcaggccag ggtgaaaatg     240
31  tacatccagg tggagcctgt gctggactac ctgacctttc tgcctgcaga ggtgaaggag    300
33  cagattcaga ggacagtcgc cacctccggg aacatgcagg cagttgaact gctgctgagc    360
35  accttggaga agggagtctg gcaccttggt tggactcggg aattcgtgga ggccctccgg    420
37  agaaccggca gccctctggc cgcccgctac atgaaccctg agctcacgga cttgccctct    480
39  ccatcgtttg agaacgctca tgatgaatat ctccaactgc tgaacctcct tcagcccact    540
41  ctggtggaca agcttctagt tagagacgtc ttggataagt gcatggagga ggaactgttg    600
43  acaattgaag acagaaaccg gattgctgct gcagaaaaca atggaaatga atcaggtgta    660
45  agagagctac taaaaaggat tgtgcagaaa gaaaactggt tctctgcatt tctgaatgtt    720
47  cttcgtcaaa caggaaacaa tgaacttgtc caagagttaa caggctctga ttgctcagaa    780
49  agcaatgcag agattgagaa tttatcacaa gttgatggtc ctcaagtgga gagcaactt     840
51  ctttcaacca cagttcagcc aaatctggag aaggaggtct ggggcatgga gaataactca    900
53  tcagaatcat cttttgcaga ttcttctgta gtttcagaat cagacacaag tttggcagaa    960
55  ggaagtgtca gctgcttaga tgaaagtctt ggacataaca gcaacatggg cagtgattca   1020
57  ggcaccatgg gaagtgattc agatgaagag aatgtggcag caagagcatc cccggagcca   1080
59  gaactccagc tcaggcctta ccaaatggaa gttgcccagc cagccttgga agggaagaat   1140
61  atcatcatct gcctccctac agggagtgga aaaaccagag tggctgttta cattgccaag   1200
63  gatcacttag acaagaagaa aaaagcatct gagcctggaa aagttatagt tcttgtcaat   1260
65  aaggtactgc tagttgaaca gctcttccgc aaggagttcc aaccattttt gaagaaatgg   1320
67  tatcgtgtta ttggattaag tggtgatacc caactgaaaa tatcatttcc agaagttgtc   1380
69  aagtcctgtg atattattat cagtacagct caaatccttg aaaactccct cttaaacttg   1440
71  gaaaatggag aagatgctgg tgttcaattg tcagactttt ccctcattat cattgatgaa   1500
73  tgtcatcaca ccaacaaaga agcagtgtat aataacatca tgaggcatta tttgatgcag   1560
75  aagttgaaaa acaatagact caagaaagaa aacaaaccag tgattcccct tcctcagata   1620
77  ctgggactaa cagcttcacc tggtgttgga ggggccacga agcaagccaa agctgaagaa   1680
79  cacattttaa aactatgtgc caatcttgat gcatttacta ttaaaactgt aaagaaaac    1740
81  cttgatcaac tgaaaaacca aatacaggag ccatgcaaga agtttgccat tgcagatgca   1800
83  accagagaag atccatttaa agagaaactt ctagaaataa tgacaaggat tcaaacttat   1860
85  tgtcaaatga gtccaatgtc agattttgga actcaaccct atgaacaatg gccattcaa    1920
87  atggaaaaaa aagctgcaaa aaaggaaat cgcaaagaac gtgtttgtgc agaacatttg    1980
89  aggaagtaca atgaggccct acaaattaat gacacaattc gaatgataga tgcgtatact   2040
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 91 catcttgaaa ctttctataa tgaagagaaa gataagaagt ttgcagtcat agaagatgat  2100
 93 agtgatgagg gtggtgatga tgagtattgt gatggtgatg aagatgagga tgatttaaag  2160
 95 aaacctttga aactggatga aacagataga tttctcatga ctttattttt tgaaaacaat  2220
 97 aaaatgttga aaaggctggc tgaaaaccca gaatatgaaa atgaaaagct gaccaaatta  2280
 99 agaaatacca taatggagca atatactagg actgaggaat cagcacgagg aataatcttt  2340
101 acaaaaacac gacagagtgc atatgcgctt tcccagtgga ttactgaaaa tgaaaaattt  2400
103 gctgaagtag gagtcaaagc ccaccatctg attggagctg gacacagcag tgagttcaaa  2460
105 cccatgacac agaatgaaca aaaagaagtc attagtaaat ttcgcactgg aaaaatcaat  2520
107 ctgcttatcg ctaccacagt ggcagaagaa ggtctggata ttaaagaatg taacattgtt  2580
109 atccgttatg gtctcgtcac caatgaaata gccatggtcc aggcccgtgg tcgagccaga  2640
111 gctgatgaga gcacctacgt cctggttgct cacagtggtt caggagttat cgaacatgag  2700
113 acagttaatg atttccgaga gaagatgatg tataaagcta tacattgtgt tcaaaatatg  2760
115 aaaccagagg agtatgctca taagattttg gaattacaga tgcaaagtat aatggaaaag  2820
117 aaaatgaaaa ccaagagaaa tattgccaag cattacaaga ataacccatc actaataact  2880
119 ttcctttgca aaaactgcag tgtgctagcc tgttctgggg aagatatcca tgtaattgag  2940
121 aaaatgcatc acgtcaatat gacccccagaa ttcaaggaac tttacattgt aagagaaaac  3000
123 aaagcactgc aaaagaagtg tgccgactat caaataaatg gtgaaatcat ctgcaaatgt  3060
125 ggccaggctt ggggaacaat gatggtgcac aaaggcttag atttgccttg tctcaaaata  3120
127 aggaatttttg tagtggtttt caaaaataat tcaacaaaga aacaatacaa aaagtgggta  3180
129 gaattaccta tcacatttcc caatcttgac tattcagaat gctgtttatt tagtgatgag  3240
131 gattagcact tgattgaaga ttctttttaaa atactatcag ttaaacattt aatatgatta  3300
133 tgattaatgt attcattatg ctacagaact gacataagaa tcaataaaat gattgtttta  3360
135 ctctg                                                               3365
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138 <210> SEQ ID NO: 2
139 <211> LENGTH: 3131
140 <212> TYPE: PRT
141 <213> ORGANISM: Human

143 <400> SEQUENCE: 2

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145 Ala Thr Gly Thr Cys Gly Ala Ala Thr Gly Gly Gly Thr Ala Thr Thr
146 1               5                   10                  15
148 Cys Cys Ala Cys Ala Gly Ala Cys Gly Ala Gly Ala Ala Thr Thr Thr
149              20                  25                  30
151 Cys Cys Gly Cys Thr Ala Thr Cys Thr Cys Ala Thr Cys Thr Cys Gly
152          35                  40                  45
154 Thr Gly Cys Thr Thr Cys Ala Gly Gly Gly Cys Cys Ala Gly Gly Gly
155      50                  55                  60
157 Thr Gly Ala Ala Ala Ala Thr Gly Thr Ala Cys Ala Thr Cys Cys Ala
158 65                  70                  75                  80
160 Gly Gly Thr Gly Gly Ala Gly Cys Cys Thr Gly Thr Gly Cys Thr Gly
161                  85                  90                  95
163 Gly Ala Cys Thr Ala Cys Cys Thr Gly Ala Cys Cys Thr Thr Thr Cys
164              100                 105                 110
166 Thr Gly Cys Cys Thr Gly Cys Ala Gly Ala Gly Gly Thr Gly Ala Ala
167          115                 120                 125
169 Gly Gly Ala Gly Cys Ala Gly Ala Thr Thr Cys Ala Gly Ala Gly Gly
170      130                 135                 140
172 Ala Cys Ala Gly Thr Cys Gly Cys Cys Ala Cys Cys Thr Cys Cys Gly
173 145                 150                 155                 160
175 Gly Gly Ala Ala Cys Ala Thr Gly Cys Ala Gly Gly Cys Ala Gly Thr
```

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```
176                   165               170               175
178 Thr Gly Ala Ala Cys Thr Gly Cys Thr Gly Cys Thr Gly Ala Gly Cys
179                   180               185               190
181 Ala Cys Cys Thr Thr Gly Gly Ala Gly Ala Ala Gly Gly Gly Ala Gly
182           195               200               205
184 Thr Cys Thr Gly Gly Cys Ala Cys Cys Thr Thr Gly Gly Thr Thr Gly
185       210               215               220
187 Gly Ala Cys Thr Cys Gly Gly Gly Ala Ala Thr Thr Cys Gly Thr Gly
188 225               230               235               240
190 Gly Ala Gly Gly Cys Cys Cys Thr Cys Cys Gly Gly Ala Gly Ala Ala
191               245               250               255
193 Cys Cys Gly Gly Cys Ala Gly Cys Cys Cys Thr Cys Thr Gly Gly Cys
194               260               265               270
196 Cys Gly Cys Cys Cys Gly Cys Thr Ala Cys Ala Thr Gly Ala Ala Cys
197           275               280               285
199 Cys Cys Thr Gly Ala Gly Cys Thr Cys Ala Cys Gly Gly Ala Cys Thr
200       290               295               300
202 Thr Gly Cys Cys Cys Thr Cys Thr Cys Cys Ala Thr Cys Gly Thr Thr
203 305               310               315               320
205 Thr Gly Ala Gly Ala Ala Cys Gly Cys Thr Cys Ala Thr Gly Ala Thr
206               325               330               335
208 Gly Ala Ala Thr Ala Thr Cys Thr Cys Cys Ala Ala Cys Thr Gly Cys
209               340               345               350
211 Thr Gly Ala Ala Cys Cys Thr Cys Cys Thr Thr Cys Ala Gly Cys Cys
212           355               360               365
214 Cys Ala Cys Thr Cys Thr Gly Gly Thr Gly Gly Ala Cys Ala Ala Gly
215       370               375               380
217 Cys Thr Thr Cys Thr Ala Gly Thr Thr Ala Gly Ala Gly Ala Cys Gly
218 385               390               395               400
220 Thr Cys Thr Thr Gly Gly Ala Thr Ala Ala Gly Thr Gly Cys Ala Thr
221               405               410               415
223 Gly Gly Ala Gly Gly Ala Gly Gly Ala Ala Cys Thr Gly Thr Thr Gly
224               420               425               430
226 Ala Cys Ala Ala Thr Thr Gly Ala Ala Gly Ala Cys Ala Gly Ala Ala
227           435               440               445
229 Ala Cys Cys Gly Gly Ala Thr Thr Gly Cys Thr Gly Cys Thr Gly Cys
230       450               455               460
232 Ala Gly Ala Ala Ala Ala Cys Ala Ala Thr Gly Gly Ala Ala Ala Thr
233 465               470               475               480
235 Gly Ala Ala Thr Cys Ala Gly Gly Thr Gly Thr Ala Ala Gly Ala Gly
236               485               490               495
238 Ala Gly Cys Thr Ala Cys Thr Ala Ala Ala Ala Ala Gly Gly Ala Thr
239           500               505               510
241 Thr Gly Thr Gly Cys Ala Gly Ala Ala Ala Gly Ala Ala Ala Ala Cys
242       515               520               525
244 Thr Gly Gly Thr Thr Cys Thr Cys Thr Gly Cys Ala Thr Thr Thr Cys
245       530               535               540
247 Thr Gly Ala Ala Thr Gly Thr Thr Cys Thr Thr Cys Gly Thr Cys Ala
248 545               550               555               560
```

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250 Ala Ala Cys Ala Gly Gly Ala Ala Ala Cys Ala Ala Thr Gly Ala Ala
251             565             570             575
253 Cys Thr Thr Gly Thr Cys Cys Ala Ala Gly Ala Gly Thr Thr Ala Ala
254             580             585             590
256 Cys Ala Gly Gly Cys Thr Cys Thr Gly Ala Thr Thr Gly Cys Thr Cys
257         595             600             605
259 Ala Gly Ala Ala Ala Gly Cys Ala Ala Thr Gly Cys Ala Gly Ala Gly
260     610             615             620
262 Ala Thr Thr Gly Ala Gly Ala Ala Thr Thr Thr Ala Thr Cys Ala Cys
263 625             630             635             640
265 Ala Ala Gly Thr Thr Gly Ala Thr Gly Gly Thr Cys Cys Thr Cys Ala
266             645             650             655
268 Ala Gly Thr Gly Gly Ala Ala Gly Ala Gly Cys Ala Ala Cys Thr Thr
269         660             665             670
271 Cys Thr Thr Thr Cys Ala Ala Cys Cys Ala Cys Ala Gly Thr Thr Cys
272         675             680             685
274 Ala Gly Cys Cys Ala Ala Ala Thr Cys Thr Gly Gly Ala Gly Ala Ala
275     690             695             700
277 Gly Gly Ala Gly Gly Thr Cys Thr Gly Gly Gly Gly Cys Ala Thr Gly
278 705             710             715             720
280 Gly Ala Gly Ala Ala Thr Ala Ala Cys Thr Cys Ala Thr Cys Ala Gly
281             725             730             735
283 Ala Ala Thr Cys Ala Thr Cys Thr Thr Thr Thr Gly Cys Ala Gly Ala
284         740             745             750
286 Thr Thr Cys Thr Thr Cys Thr Gly Thr Ala Gly Thr Thr Thr Cys Ala
287         755             760             765
289 Gly Ala Ala Thr Cys Ala Gly Ala Cys Ala Cys Ala Ala Gly Thr Thr
290     770             775             780
292 Thr Gly Gly Cys Ala Gly Ala Ala Gly Gly Ala Ala Gly Thr Gly Thr
293 785             790             795             800
295 Cys Ala Gly Cys Thr Gly Cys Thr Thr Ala Gly Ala Thr Gly Ala Ala
296             805             810             815
298 Ala Gly Thr Cys Thr Thr Gly Gly Ala Cys Ala Thr Ala Ala Cys Ala
299         820             825             830
301 Gly Cys Ala Ala Cys Ala Thr Gly Gly Gly Cys Ala Gly Thr Gly Ala
302         835             840             845
304 Thr Thr Cys Ala Gly Gly Cys Ala Cys Cys Ala Thr Gly Gly Gly Ala
305     850             855             860
307 Ala Gly Thr Gly Ala Thr Thr Cys Ala Gly Ala Thr Gly Ala Ala Gly
308 865             870             875             880
310 Ala Gly Ala Ala Thr Gly Thr Gly Gly Cys Ala Gly Cys Ala Ala Gly
311             885             890             895
313 Ala Gly Cys Ala Thr Cys Cys Cys Cys Gly Gly Ala Gly Cys Cys Ala
314         900             905             910
316 Gly Ala Ala Cys Thr Cys Cys Ala Gly Cys Thr Cys Ala Gly Gly Cys
317         915             920             925
319 Cys Thr Thr Ala Cys Cys Ala Ala Ala Thr Gly Gly Ala Ala Gly Thr
320     930             935             940
322 Thr Gly Cys Cys Cys Ala Gly Cys Cys Ala Gly Cys Cys Thr Thr Gly
```

```
323 945                   950               955                960
325 Gly Ala Ala Gly Gly Gly Ala Ala Gly Ala Ala Thr Ala Thr Cys Ala
326             .        965               970                975
328 Thr Cys Ala Thr Cys Thr Gly Cys Cys Thr Cys Cys Cys Thr Ala Cys
329             980              985               990
331 Ala Gly Gly Gly Ala Gly Thr Gly  Gly Ala Ala Ala Ala  Ala Cys Cys
332          995            1000            1005
334 Ala Gly  Ala Gly Thr Gly Gly  Cys Thr Gly Thr Thr  Thr Ala Cys
335      1010            1015            1020
337 Ala Thr  Thr Gly Cys Cys Ala  Ala Gly Gly Ala Thr  Cys Ala Cys
338      1025            1030            1035
340 Thr Thr  Ala Gly Ala Cys Ala  Ala Gly Ala Ala Gly  Ala Ala Ala
341      1040            1045            1050
343 Ala Ala  Ala Gly Cys Ala Thr  Cys Thr Gly Ala Gly  Cys Cys Thr
344      1055            1060            1065
346 Gly Gly  Ala Ala Ala Ala Gly  Thr Thr Ala Thr Ala  Gly Thr Thr
347      1070            1075            1080
349 Cys Thr  Thr Gly Thr Cys Ala  Ala Thr Ala Ala Gly  Gly Thr Ala
350      1085            1090            1095
352 Cys Thr  Gly Cys Thr Ala Gly  Thr Thr Gly Ala Ala  Cys Ala Gly
353      1100            1105            1110
355 Cys Thr  Cys Thr Thr Cys Cys  Gly Cys Ala Ala Gly  Gly Ala Gly
356      1115            1120            1125
358 Thr Thr  Cys Cys Ala Ala Cys  Cys Ala Thr Thr Thr  Thr Thr Gly
359      1130            1135            1140
361 Ala Ala  Gly Ala Ala Ala Thr  Gly Gly Thr Ala Thr  Cys Gly Thr
362      1145            1150            1155
364 Gly Thr  Thr Ala Thr Thr Gly  Gly Ala Thr Thr Ala  Ala Gly Thr
365      1160            1165            1170
367 Gly Gly  Thr Gly Ala Thr Ala  Cys Cys Cys Ala Ala  Cys Thr Gly
368      1175            1180            1185
370 Ala Ala  Ala Ala Thr Ala Thr  Cys Ala Thr Thr Thr  Cys Cys Ala
371      1190            1195            1200
373 Gly Ala  Ala Gly Thr Thr Gly  Thr Cys Ala Ala Gly  Thr Cys Cys
374      1205            1210            1215
376 Thr Gly  Thr Gly Ala Thr Ala  Thr Thr Ala Thr Cys  Ala Gly Thr
377      1220            1225            1230
379 Ala Cys  Ala Gly Cys Thr Cys  Ala Ala Ala Thr Cys  Cys Thr Thr
380      1235            1240            1245
382 Gly Ala  Ala Ala Ala Cys Thr  Cys Cys Cys Thr Cys  Thr Thr Ala
383      1250            1255            1260
385 Ala Ala  Cys Thr Thr Gly Gly  Ala Ala Ala Ala Thr  Gly Gly Ala
386      1265            1270            1275
388 Gly Ala  Ala Gly Ala Thr Gly  Cys Thr Gly Gly Thr  Gly Thr Thr
389      1280            1285            1290
391 Cys Ala  Ala Thr Thr Gly Thr  Cys Ala Gly Ala Cys  Thr Thr Thr
392      1295            1300            1305
394 Thr Cys  Cys Cys Thr Cys Ala  Thr Thr Ala Thr Cys  Ala Thr Thr
395      1310            1315            1320
```

Please Note:
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.**

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/515,363B**

DATE: 06/20/2001
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Input Set : **A:\pto.txt**
Output Set: **N:\CRF3\06202001\I515363B.raw**

L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3